

Remarks

Regarding the Examiner's detailed action dated October 10, 2003, applicants herewith file amended claims. The amendments relate to the formality objections and claim rejections under 35 USC § 112 only (paragraphs 1-4 of the detailed action). Additionally, claims 9-11 have now been cancelled.

The Examiner rejects claims 1-2, 5-7, 12-13, 15 and 17 under 35 USC § 102(e) as being anticipated by Darcie et al (US 6,493,335). The Examiner further rejects claims 3-4, 8, 14, 16 and 18-19 under 35 USC § 103(a) as being unpatentable over the same reference. Applicants will address each of the Examiner's rejections in turn.

Firstly, however, applicants would like to take this opportunity to explain in general terms a major difference between the present invention and that described in Darcie. One particular feature of the present invention is that it is the Optical Line Termination (OLT) equipment – i.e. the “head-end” – that performs collision detection and not the outstations. Advantages of this feature are described in the present application at page 10, line 32 to page 11, line 3 and also at page 14, lines 28-31. In contrast, the system described in the Darcie reference specifically requires that each End User (EU) – i.e. each “outstation” – performs collision detection assisted by traffic information signals provided by Intermediate Nodes (INs) and specifically without the involvement of Central Office (CO) or “head-end” equipment. The Examiner is directed to column 2, lines 58-60 and column 5, lines 52-55 of the Darcie reference where this is made clear.

Referring to paragraph 6 and 7 of the detailed action, the Examiner rejects claim 1 as being anticipated by Darcie. However, as explained above, collision detection is performed by the EUs in Darcie and it cannot be said that “the OLT equipment comprises collision detection logic ...” as required by claim 1.

Furthermore, there is no disclosure in Darcie of the "optical communication resource including an optical splitter". The Examiner cites column 4, line 60-61 of Darcie as disclosing this feature. However, this passage and the disclosure relating to figure 1 in general merely discloses a Central Office/Head End CO/HE 10 (which is an electronic device) connected to four INs via four ports. Clearly this does not disclose an "optical splitter" (which is a simple passive optical device) but an electronic switch which is capable of routing packets to each of the distribution ports (see column 4, lines 61-67).

The rejection of claim 1 is thus submitted to be in error. In view of the above, it is submitted that the Examiner's rejections of dependent claims 2-4 (paragraphs 8 and 19-20) are moot.

The Examiner further rejects claim 5 (paragraph 9 of the detailed action). However, as discussed above, the Darcie reference does not disclose the OLT comprising collision detection logic, and the rejection of claim 5 is believed to be in error. Accordingly, the Examiner's rejections of dependent claims 6-8 (paragraphs 10, 11 and 19 of the detailed action) are moot.

The Examiner further rejects claim 12 of the present invention (paragraph 13 of the detailed action). However, as discussed above, Darcie does not disclose a method of operating a base station (i.e. a "head-end" equipment which performs media access control). Rather, it is the EUs which perform media access control (i.e. collision detection and avoidance) without the involvement of the CO/HE. Thus, the rejection of claim 12 is submitted to be in error, and in view of the above, the Examiner's rejection of dependent claims 13-14 (paragraphs 14 and 19 of the detailed action) are moot.


The Examiner also rejects claim 15 of the present invention (see paragraph 15 of the detailed action). However, for the reasons discussed above, Darcie does not disclose "detecting, at the optical line termination equipment, uplink collisions and administering media access control of outstations according to the detecting ...". The rejection is believed to be in error. In view of the above, the Examiner's rejection of claim 16 (paragraph 19 of the detailed action) is moot.

Finally, the Examiner rejects claim 17 (paragraph 16 of the detailed action). However, as discussed above, Darcie does not disclose computer-readable medium comprising computer-readable instructions for controlling exchange equipment comprising code that directs the exchange equipment to administer media access control. In Darcie, it is the EUs that perform collision detection and not the Switched Bridger (i.e. a component of the CO/HE). Thus, the rejection of claim 17 is submitted to be in error, and in view of the above, the Examiner's rejection of claims 18 and 19 (paragraphs 19 and 22 of the detailed action) are moot.

Applicants submit that the claims currently pending are both novel and non-obvious over the prior art references cited and therefore request favorable reconsideration of the application.

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Respectfully submitted,


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